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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,320	07/03/2003	Randal L. Shuman	4878-1	7351
22442	7590	11/23/2007		
SHERIDAN ROSS PC 1560 BROADWAY SUITE 1200 DENVER, CO 80202			EXAMINER BECKER, DREW E	
			ART UNIT	PAPER NUMBER
			1794	
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			11/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/614,320	SHUMAN ET AL.	
	Examiner	Art Unit	
	Drew E. Becker	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-67 is/are pending in the application.
- 4a) Of the above claim(s) 33-41, 44-52 and 61-66 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32, 42, 43, 53-60 and 67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 April 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings were received on 4/10/07. These drawings are accepted.

Election/Restrictions

2. Newly submitted claims 61-66 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: applicant elected group I directed to the apparatus without traverse in the response of 10/12/06.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 61-66 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Specification

3. The abstract of the disclosure is objected to because it exceeds 150 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1—2, 42-43, 53-60, and 67 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant failed to point out where all of the new limitations are supported by the application.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 2, 4, and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 2 recites "wherein said germicidal emittors are capable of withstanding water sprays of at least 1,100 psig, and approximately no more than 1,350 psig". It is not clear whether the "water sprays" are part of the claimed invention since they have not been positively recited. It is not clear whether the claims requires a range of 1100-1350, at least 1100, or less than 1350. It is not clear what value would be considered "approximately no more than 1,350 psig".

9. Claim 4 recites "wherein the germicidal emittors are capable of withstanding water sprays a temperature of at least 190 degrees Fahrenheit, and approximately no more than 200 degrees Fahrenheit". It is not clear whether the "water sprays" are part of the claimed invention since they have not been positively recited. It is not clear whether

the claims requires a range of 190-200, at least 190, or less than 200. It is not clear what value would be considered "approximately no more than 200". It is not clear whether the spray is at the recited temperature, or not.

10. Claim 43 recites "the controller performs more than a majority of the actions". It is not clear how many actions are required. If one were to perform all of the actions (ie all six), this would also constitute a majority. It is not clear how one would perform "more than a majority" in this instance.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-10, 12-15, 18-20, 22-29, 31-32, 53-55, 59, and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newman [Pat. No. 5,597,597] in view of Eckhardt et al [US 2002/0168287] and Fakieh [Pat. No. 5,910,332] as evidenced by York [Pat. No. 6,675,437].

Newman teaches a device comprising a drum transport (Figure 10, #242), an entry conveyor (Figure 10, #246), an exit conveyor (Figure 10, #256), germicidal emitters (Figure 10, #18), inherently detachable and replaceable spiral tumblers with recesses between them (Figure 9, #254), the drum having a decline (column 8, line 15), a motor

and belt (column 8, line 9), the emitters radiating UVC radiation which was capable of surface sterilizing food at -40°F (column 5, line 28), a containment sleeve (Figure 10, #20), entry and exit shrouds (Figure 3, #116), the UVC radiation not affecting the food's surface temperature or eating characteristics, and a lack of chemicals and breakage. Phrases such as "said food product includes one of:" and "shrink wrapped" are merely preferred methods of using and making the claimed apparatus. Newman does not recite an assembly for the emitters which is within the interior of the transport, the assembly including electrical components for activating the emitter, a support for the assembly which is capable of being moved into and out of the interior, the emitters being capable of withstanding water sprays of 1,250 psi and 195°F. Eckhardt et al teach a device comprising a rotating drum transport (Figure 1, #3), UV emitters within the drum (Figure 1, #5; paragraph 0018), an assembly with electrical components for activating the emitter (paragraph 0021), the drum being polygonal (paragraph 0017), and a light-tight enclosure (paragraph 0021). Fakieh teaches a device comprising an emitter which is located within a rotatable drum (Figure 1, #12 & 50), an assembly for the emitters which movable between two positions (Figure 1, #14), and a support for the assembly (Figure 1, #56). It would have been obvious to one of ordinary skill in the art to incorporate the interior emitters and electrical components of Eckhardt et al into the invention of Newman since both are directed to devices for emitting UV radiation, since Newman already included emitters within the chamber, since Newman inherently required some sort of controller even though none was explicitly described, since the electrical components of Eckhardt et al provided the safety function of enabling and disabling the

emitters based on whether the chamber was closed (paragraph 0021), and since the emitter within the drum configuration of Eckhardt et al would have better ensured complete treatment of the material. It would have been obvious to one of ordinary skill in the art to incorporate the movable assembly and support of Fakieh into the invention of Newman, in view of Eckhardt et al, since all are directed to emitter devices, since Newman already taught removing the transport for cleaning and repair (column 6, lines 56-63), since Eckhardt et al already taught an emitter within the drum (Figure 1, #5), and since the assembly and support of Fakieh provided a convenient and simple means for removing a central emitter located within a rotatable drum (Figure 1). It would have been obvious to one of ordinary skill in the art to make the device of Newman, in view of Eckhardt et al and Fakieh, capable of withstanding water sprays of 1,250 psi and 195°F since Newman and Fakieh were both directed to food treatment equipment, since food processing facilities were commonly cleaned with high pressure and temperature water sprays (also known as pressure washers), and since pressure washers were commonly used at these operating conditions as evidenced by York (column 7, line 3; column 22, line 64).

13. Claims 11, 16-17, 21, 30, 56-58, and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newman, in view of Eckhardt et al and Fakieh, as applied above, and further in view of Welt et al [Pat. No. 5,40,382].

Newman, Eckhardt et al, and Fakieh teach the above mentioned components. Newman, Eckhardt et al, and Fakieh do not recite an electronic controller for the declination, a controller for the rotational speed of the drum, a controller for varying the amount of

germicidal emitted, baffle sensors with a controller, a weight sensor, a depth sensor, blockage sensors, and . Welt et al teach an irradiation device comprising a controller for product dwell time, product speed, the amount of radiation applied, the amount of product which enters and exits, as well as manual input and automatic settings (column 6, lines 15-20 & 58-61; column 9, line 51 to column 16, line 50). It would have been obvious to one of ordinary skill in the art to incorporate the controller of Welt et al into the invention of Newman, in view of Eckhardte et al and Fakieh, since all are directed to irradiation devices, since Newman inherently required some sort of controller even though none was explicitly described, and since the controller of Welt et al provided a reliable and accurate means for monitoring, tracking, and controlling the device Newman. It would have been obvious to one of ordinary skill in the art to automate such conventional manual activities such as monitoring the amounts of material to be treated, ensuring that the device is closed, and monitoring operations in order to observe blockages since this would have been done during the course of normal operating procedures, since monitoring the amount of material would ensure that the device is not overloaded and that all of the material is treated to a sufficient degree, since detecting blockages would have prevented waste of material and lost time due to clean-up, and since manually ensuring the proper configuration for the device would have prevented accidents and other mishaps. Regarding automating of manual activities, MPEP 2144.04 states: In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) (Appellant argued that claims to a permanent mold casting apparatus for molding trunk pistons were allowable over the prior art because the claimed invention combined "old

permanent- mold structures together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner core after a predetermined time has elapsed." The court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.).

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. McGinty [Pat. No. 4,410,553], Torres [Pat. No. 2,464,421], Boucher [Pat. No. 3,175,299] teach food preparation devices.

Response to Arguments

15. Applicant's arguments with respect to claims 1-32, 42-43, 53-60, and 67 have been considered but are moot in view of the new ground(s) of rejection.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have

suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Drew E. Becker whose telephone number is 571-272-1396. The examiner can normally be reached on Mon.-Fri. 8am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on 571-272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/614,320
Art Unit: 1794

Page 11

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DREW BECKER
PRIMARY EXAMINER
11/21/07